

**REMARKS**

Applicants have carefully reviewed this Application in light of the Office Action mailed June 8, 2007. Claims 13-32 were previously cancelled without prejudice or disclaimer due to an election/restriction requirement. Claim 9 was previously cancelled without prejudice or disclaimer and Claims 1-8, 10-12, 33 and 34 are pending in this Application. Claims 1-8, 10-12 and 33-34 stand rejected under 35 U.S.C. § 103(a). Applicants respectfully request reconsideration and favorable action in this case.

**Rejections under 35 U.S.C. § 103**

Claims 1-3, 5-11 and 33-34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2002/0145773 by Satoru Tanaka et al. ("*Tanaka*").

Claims 4 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Tanaka* as applied to Claims 1 and 8 above, and further in view of U.S. Patent No. 6,781,725 issued to Marko Zgonik ("*Zgonik*").

*Tanaka* discloses a hologram recording method and an optical information recording and reproducing apparatus utilizing the holographic memory. A rotatable plane mirror is arranged on an opposite side of a recording medium from a recording reference light beam. (Paragraph 82). At a reproducing time, the plane mirror is fixed such that the mirror is opposed to the recording reference light beam passing through the recording medium and at a recording time, the plane mirror is rotated such that the recording reference light beam is guided to a light absorber. (Paragraph 82).

*Zgonik* discloses a storage method and system for storing mutually non-overlapping volume holograms.

Claim 1, as amended, recites a system comprising "a reference mirror located at a waist of the reference beam and configured such that the reference beam is reflected from the reference mirror to the beam splitter in order to eliminate the need for a reference objective on a reference arm."

Claim 8, as amended, recites a method comprising the step of "reflecting the portion of the reference beam from a reference mirror located at the waist of the reference beam and configured such that the reference beam is reflected from the reference mirror to the beam

splitter, the reference mirror eliminating the need for a reference objective on a reference arm.”

Applicants respectfully submit that the cited reference fails to disclose every element of Applicants’ invention as amended. For example *Tanaka* fails to teach at least a direct-to-digital holography system comprising “a reference mirror located at a waist of the reference beam and configured such that the reference beam is reflected from the reference mirror to the beam splitter in order to eliminate the need for a reference objective on a reference arm,” as recited by amended Claim 1. Additionally, *Tanaka* fails to teach a method for acquiring a complex image in a direct-to-digital holography system including the step of “reflecting the portion of the reference beam from a reference mirror located at the waist of the reference beam and configured such that the reference beam is reflected from the reference mirror to the beam splitter, the reference mirror eliminating the need for a reference objective on a reference arm,” as recited by amended Claim 8.

In addition, the Applicants reiterate their arguments from their previous Responses that *Tanaka* fails to teach, disclose or suggest “eliminating the need for a reference objective on a reference arm” as recited in Claims 1 and 8. The Examiner acknowledges that *Tanaka* does not expressly disclose “eliminating the need for a reference objective on a reference arm” but argues that “the intention of using a reference mirror to replace a reference objective does not further define the structure of the system.” (Office Action, Pages 2-3) (emphasis in original). Applicants reiterate that their arguments from their previous Responses that Claims 1 and 8, however, do not express an intention but recite that the reference mirror eliminates “**the need for** a reference objective on a reference arm.” (emphasis added). *Tanaka* does not expressly or inherently disclose this limitation. The Examiner’s continued rejection indicates that the Examiner is asserting that *Tanaka* inherently teaches the elements recited in Claims 1 and 8. However, Applicants respectfully submit that the Examiner has failed to provide any evidence of record that *Tanaka* inherently discloses “eliminating the need for a reference objective on a reference arm.”

M.P.E.P. § 2112 explicitly states that the “Examiner must provide a rationale or evidence tending to show inherency.” More specifically, M.P.E.P. § 2112 states:

***The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)...; In re Oelrich, 666 F.2d 578, 581-21, 2212 USPQ 323, 326***

(CCPA 1981). “To establish inherency, the extrinsic evidence ‘must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. *Inherency, however must not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.*’” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted)... In relying upon the theory of inherency, *the examiner must provide a basis in fact and/or technical reasoning* to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

M.P.E.P. § 2112 (underlined emphasis in original, bold and italicized emphasis added). Applying the standards of and M.P.E.P. § 2112 to the *Tanaka*, the Examiner fails to show that *Tanaka* expressly or inherently renders obvious each and every element of Claims 1 and 8.

For at least the reasons set forth above, *Tanaka* fails to disclose the recited limitations and cannot render obvious Claims 1 and 8. Given that Claims 2-7 depend from Claim 1, and Claims 10-12 and 33-34 depend from Claim 8, Applicants respectfully submit that Claims 2-7, 10-12 and 33-34 are allowable. As such, Applicants respectfully request that the Examiner withdraw the rejections under 35 U.S.C. § 103(a) and allow Claims 1-8, 10-12 and 33-34.

**CONCLUSION**

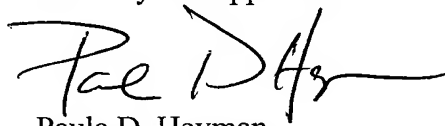
Applicants appreciate the Examiner's careful review of the application. Applicants have now made an earnest effort to place this case in condition for allowance in light of the amendments and remarks set forth above. For the foregoing reasons, Applicants respectfully request reconsideration of the rejections and full allowance of Claims 1-8, 10-12, 33 and 34, as amended.

Applicants believe no fees are due, however the Commissioner is hereby authorized to charge any additional fees necessary or credit any overpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P in order to effectuate this filing.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512.322.2581.

Respectfully submitted,

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**SEND CORRESPONDENCE TO:**

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